

# **FIBEX CRUISE ZOOPLANKTON DATA**

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#### Summary

This report summarises the sorting results of the zooplankton catches made during FIBEX (First International BIOMASS Experiment) on FRV "Walther Herwig" and RV "Meteor", from January to March 1981. In addition, a synopsis of krill larvae data collected by Polish and Argentine research vessels during FIBEX, is presented.

#### Zusammenfassung

Im folgenden Bericht werden die Sortierergebnisse der Zooplanktonfänge dargestellt, die während FIBEX (First International BIOMASS Experiment) auf FFS "Walther Herwig" und FS "Meteor" von Januar bis März 1981 gewonnen wurden. Außerdem wird eine Zusammenstellung von Krilllarven-Daten gegeben, die von polnischen und argentinischen Forschungsschiffen während FIBEX gesammelt wurden.

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### 1. Introduction

The following data lists present the results of the sorting of the zooplankton material collected during the FIBEX (First International BIOMASS Experiment) cruises on FRV "Walther Herwig" and RV "Meteor" between January and March 1981. HEMPEL et al. give a description of aims and first results of this expedition. For station lists, comments to the zooplankton sampling, treatment of the catches and descriptions of the plankton nets used, see PIATKOWSKI & KLAGES (1983).

Dr. Rakusa-Suszczewski prepared the list of the total amount of krill larvae collected by Polish and Argentine research vessels in the adjacent FIBEX areas. These data together with a station map are added in this report.

### 2. Sorting procedures for RMT 1- and NCN-catches

The samples were sorted primarily into the following groups:

- Euphausiids, adults and postlarvae
- Fish larvae
- Amphipods
- Chaetognaths.

The early life history stages of Euphausiids were subdivided into:

- Euphausia superba: eggs,  
                    naupliar stages,  
                    calyptopes,  
                    furciliars.
- Euphausiid larvae other than krill:  
                    naupliar stages,  
                    calyptopes,  
                    furciliars.

All other taxa, particularly copepods, were kept as the residual samples.

In case of very rich samples, subsamples were taken by Wiborg splitter and Folsom splitter respectively.

All numbers of individuals are given in  $n/1000 \text{ m}^3$ .

### 3.           Sorting procedures for RMT 8-catches

The sorting of FRV "Walther Herwig"-samples, counting and separating krill (Euphausia superba) from the original, began during the cruise. These krill data were worked up by NAST (1982)\*. The other taxa in the sample were later sorted into the following groups:

- Euphausiids (excl. E. superba)
- Amphipods
- Decapods
- Gastropods
- Cephalopods
- Polychaets
- Salps
- Chaetognaths
- Siphonophores
- Medusae
- Fish larvae
- Fish adults
- Mysidacea

Copepods and Invertebratae larvae found in the RMT 8-samples were left in the residual sample.

The individuals were counted after the volume (displacement volume) of the whole sample had been measured. Numbers of individuals are given in n/1000 m<sup>3</sup>.

Only E. superba was sorted from the RMT 8-catches taken on RV "Meteor". The results of these data will be published separately.

\* The krill data were worked up by sorters of Institut für Seefischerei, Bundesforschungsanstalt Hamburg.

#### 4. Zooplankton data lists

##### 4.1. Station maps

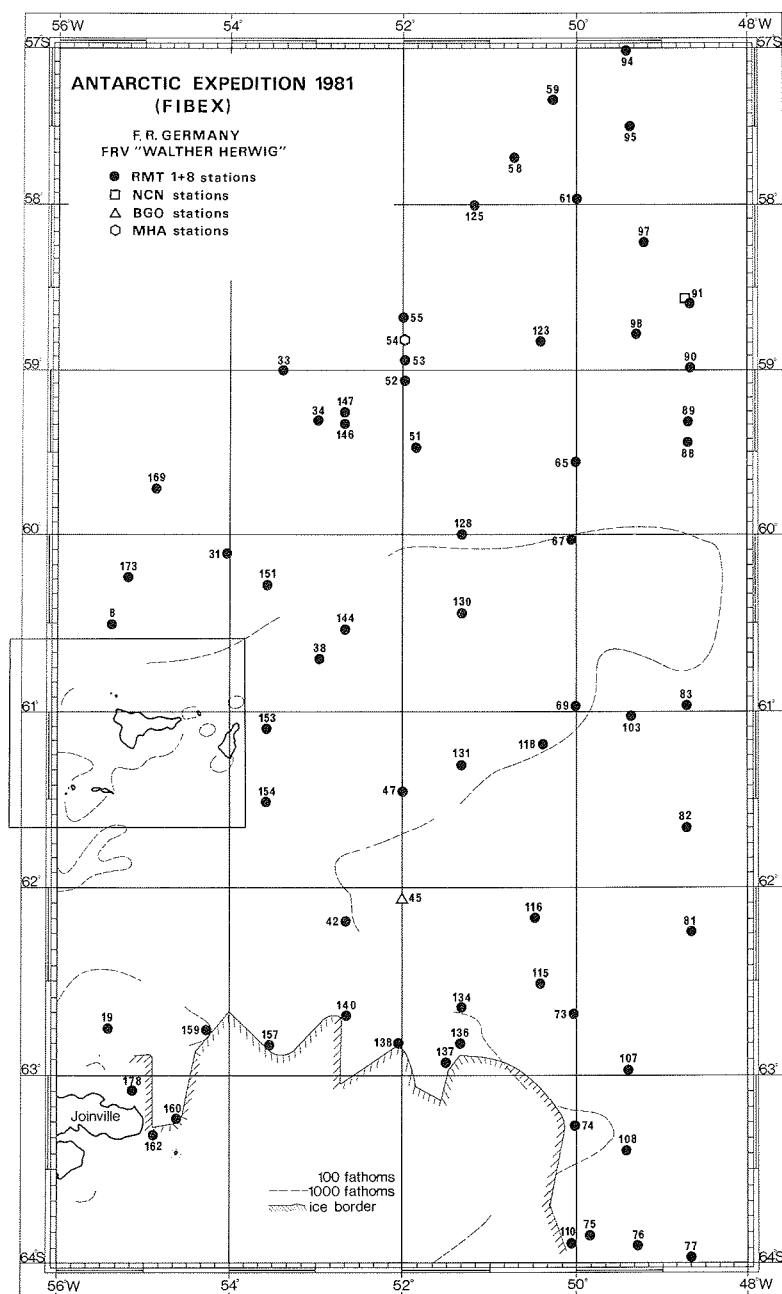


Fig. 1 Stations of zooplankton sampling during first leg of FRV "Walther Herwig"-cruise in FIBEX area (26.Jan.-1.Mar.1981). (From PIATKOWSKI & KLAGES, 1983).

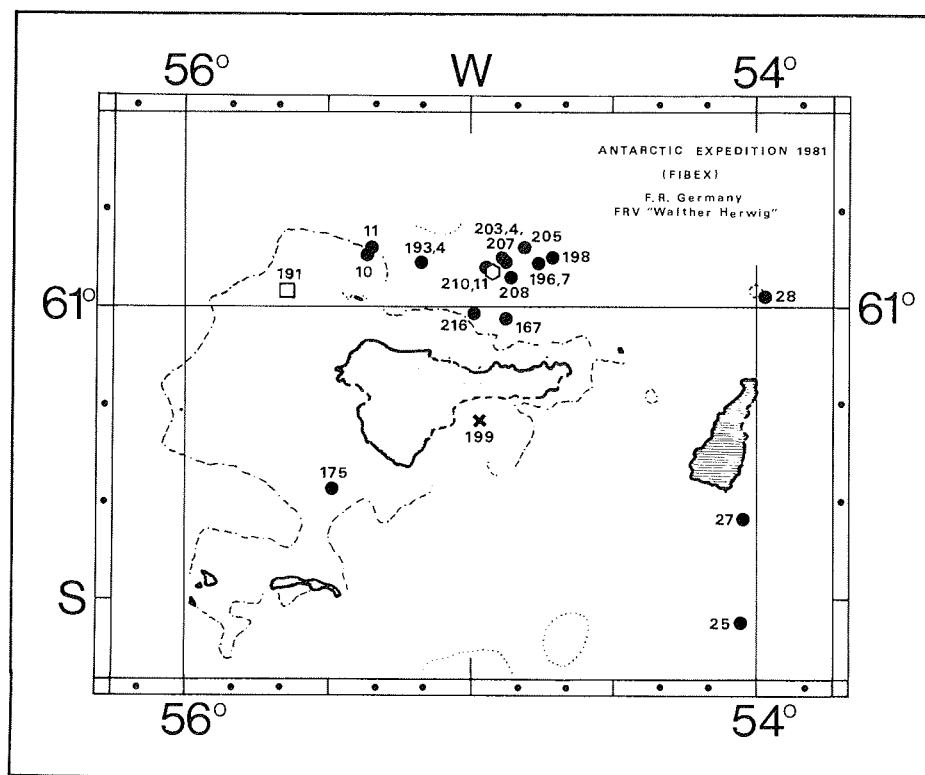


Fig. 2 Stations of zooplankton sampling near Elephant Island during first leg of FRV "Walther Herwig"-cruise (26.Jan.-1.Mar.1981).  
 ● RMT 1+8 haul                      □ NCN haul  
 ○ MHA haul                          x net cage experiment  
 (From PIATKOWSKI & KLAGES, 1983).



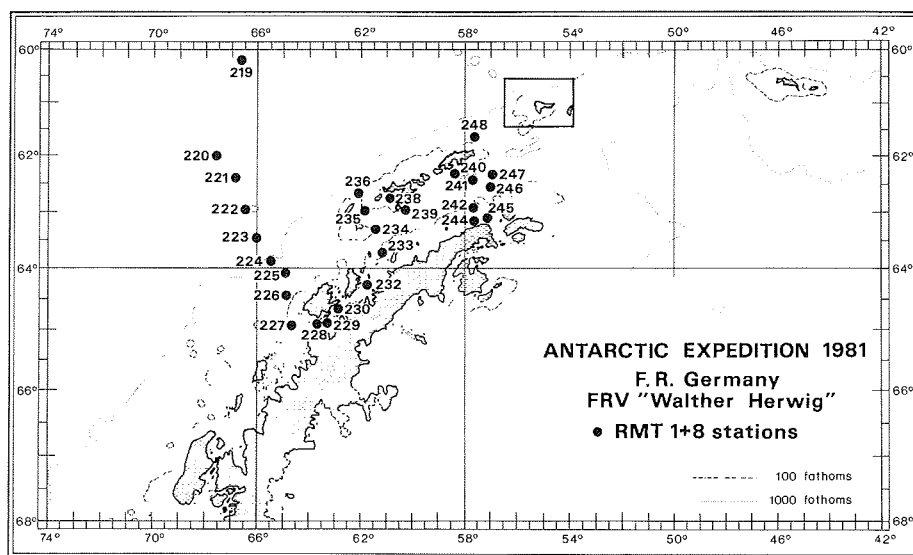


Fig. 3 Stations of zooplankton sampling during second leg of FRV "Walther Herwig"-cruise (10.Mar.-19.Mar.1981). (From PIATKOWSKI & KLAGES, 1983).

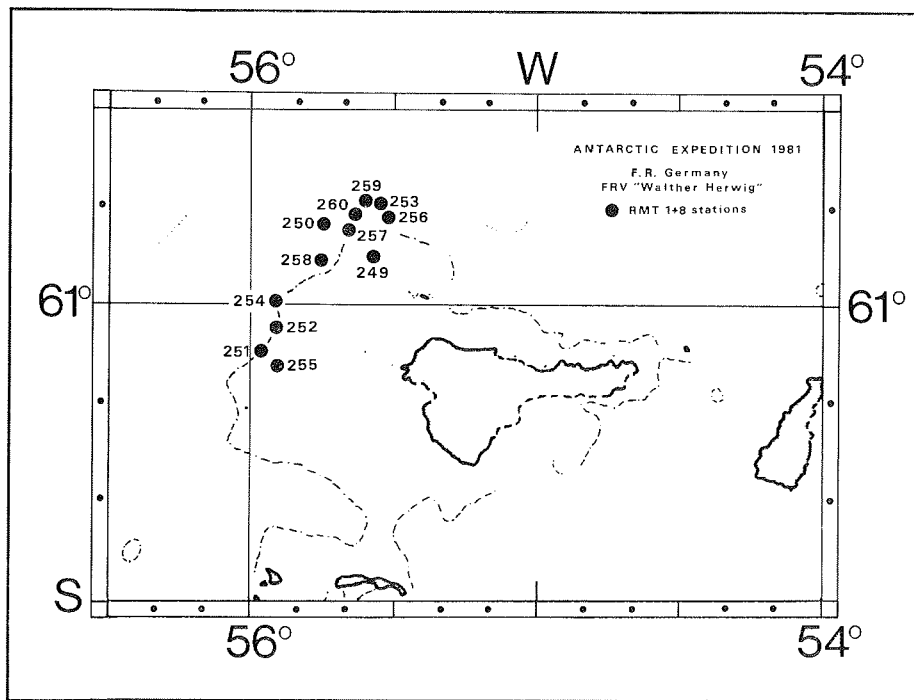
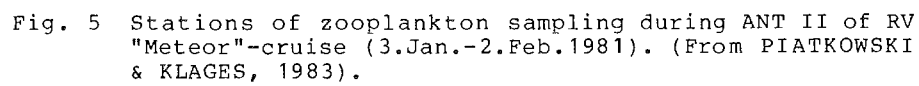


Fig. 4 Stations of zooplankton sampling near Elephant Island during second leg of FRV "Walther Herwig"-cruise (10.Mar.-19.Mar.1981). (From PIATKOWSKI & KLAGES, 1983).



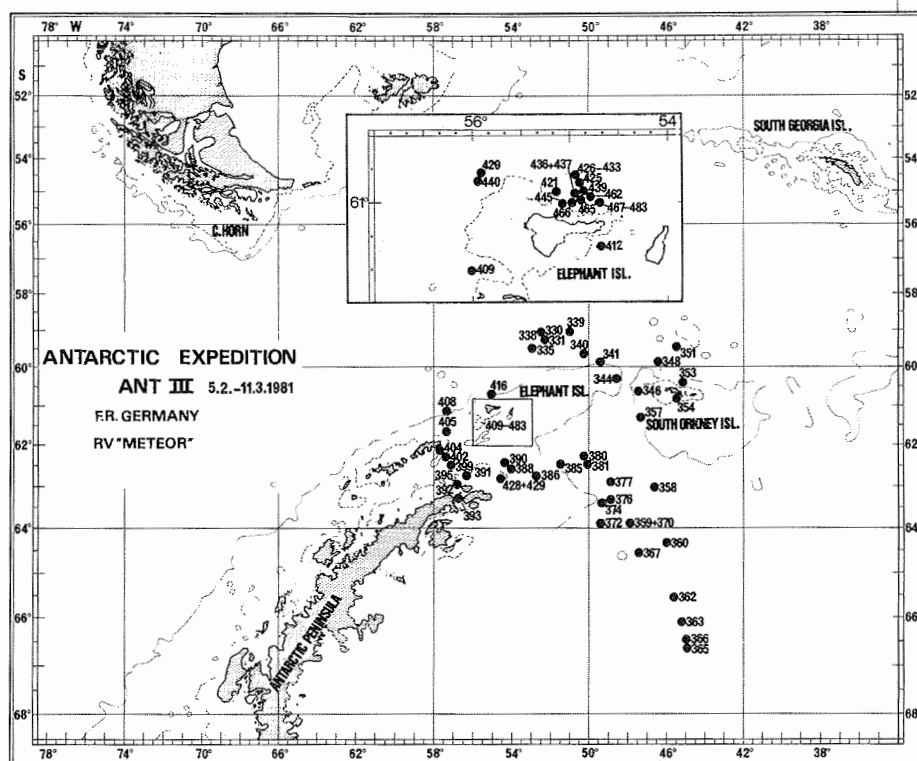


Fig. 6 Stations of zooplankton sampling during ANT III of RV "Meteor"-cruise (5.Feb.-10.Mar.1981). (From PIATKOWSKI & KLAGES, 1983).

Antarctic Expedition 1980/81 RV "Walther Herwig". Four taxonomic groups taken by RMT 1, MESSHAI (MES), NANSEN-CLOSING-NET (NCN). Individuals per 1000 m<sup>3</sup>.

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
34/10	Febr 2	RMT1	256	0	1147	305	0	
38/11	2	RMT1	10	186	611	38	0	
42/12	2	RMT1	1	103	669	78	1	
51/15	3	RMT1	25	4	n.c.	37	0	
52/16	3	RMT1	100	498	997	166	166	
53/17	3	RMT1	100	0	2511	3196	457	
54/18	3	MES	40	0	667	0	0	
55/19	4	RMT1	200	0	636	1909	0	
59/21	4	RMT1	16	0	0	483	0	
61/22	5	RMT1	100	134	n.c.	161	0	
65/23	5	RMT1	1	68	n.c.	88	0	
67/24	5	RMT1	1	29	3	94	0	
69/25	5	RMT1	2	132	n.c.	47	2	
73/26	6	RMT1	3.3	68	1164	55	13	
75/28	6	RMT1	1	808	1270	7	10	

4.2.

RMT 1- and NCN-samples

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
77/30	Febr 7	RMT1	10	361	1641	54	6	
83/33	8	RMT1	3.3	371	0	20	0	
88/34	8	RMT1	20	13	2313	200	0	
89/35	8	RMT1	50	0	0	0	0	
90/36	8	RMT1	80	0	0	0	0	
91/37	8	RMT1	100	0	n.c.	0	0	
91/38	8	NCN	16	0	156	7	0	
94/39	9	RMT1	100	0	n.c.	n.c.	0	
95/40	9	RMT1	40	0	n.c.	550	0	
97/41	9	RMT1	100	0	n.c.	196	0	
98/42	9	RMT1	100	73	771	59	0	
103/43	11	RMT1	1	35	0	44	0	
107/44	11	RMT1	4	25	n.c.	140	0	
108/45	11	RMT1	8	349	791	257	0	
110/46	12	RMT1	16	548	3945	142	0	
123/50	13	RMT1	50	0	n.c.	0	0	
125/51	14	RMT1	200	0	1139	385	0	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
128/52	Febr 14	RMT1	1	3	0	0	0	
131/54	15	RMT1	1	148	233	15	0	
140/59	16	RMT1	2	89	n.c.	n.c.	0	
144/60	16	RMT1	1	3	0	0	0	
146/61	16	RMT1	80	0	0	199	0	
147/62	17	RMT1	100	0	n.c.	357	0	
154/65	18	RMT1	16	220	n.c.	108	3	
159/67	18	RMT1	2	78	91	37	4	
160/68	18	RMT1	8	522	n.c.	609	52	
162/69	18	RMT1	10	42	0	0	18	
167/70	19	RMT1	50	407	n.c.	n.c.	0	
169/71	20	RMT1	1	19	4	1	0	
173/72	20	RMT1	1	0	0	26	0	
178/74	21	RMT1	50	0	n.c.	0	0	
191/75	23	NCN	1	0	n.c.	77	0	
205/84	27	RMT1	1	646	119	77	9	
228/10	12	RMT1	1	5	15	24	46	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
232/14	Febr 12	RMT1	4	87	0	16	20	
234/16	13	RMT1	1	548	25	147	0	
236/18	13	RMT1	1	352	684	155	0	
240/23	15	RMT1	1	521	555	464	0	
245/27	15	RMT1	1	9	77	17	0	
246/28	16	RMT1	1	300	11	20	3	
247/29	16	RMT1	1	189	0	27	3	
249/31	17	RMT1	2	19	n.c.	19	0	
251/33	17	RMT1	30	22	580	25	166	
252/34	17	RMT1	1	0	653	65	23	
254/36	18	RMT1	1	54	n.c.	129	3	
255/37	18	RMT1	1	0	n.c.	53	89	
256/38	18	RMT1	1	12	n.c.	41	4	
257/39	19	RMT1	8	27	n.c.	43	0	
258/40	19	RMT1	1	9	n.c.	15	0	
259/41	19	RMT1	2	0	104	28	0	
260/42	19	RMT1	1	0	0	0	0	



Antarctic Expedition 1980/81 RV "Meteor". Four taxonomic groups taken by RMT 1, MOCNESS (MOC),  
NANSEN-CLOSING-NET (NCN). Individuals per 1000 m<sup>3</sup>.

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
165/ 8	Jan 10	NCN	2	100	3450	150	50	
174/ 9	13	NCN1	1	0	0	0	0	
175/ 9	13	NCN2	1	21	n.c.	28	14	
176/ 9	13	NCN3	1	10	n.c.	166	0	
177/26	13	RMT1	1	3	1411	151	15	
180/27	14	RMT1	1	769	101	15	2	
181/28	16	RMT1	1	141	n.c.	12	0	
184/10	16	NCN1	1	0	39	0	0	
		NCN2	1	0	35	0	0	
		NCN3	1	0	39	0	0	
194/31	18	RMT1	1	421	34	10	1	
203/11	19	NCN1	1	0	121	7	0	
		NCN2	1	7	291	0	0	
		NCN3	1	0	471	20	0	
207/12	19	NCN	1	10	480	20	0	

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
215/13	Jan 19	NCN1 NCN2 NCN3	1 1 1	0 7 39	39 199 1343	7 0 20	0 0 0	
218/33	20	RMT1	1	574	89	6	8	
237/14	23	NCN1 NCN2	1 1	28 10	113 265	7 20	0 10	
245/37	23	RMT1	1	282	0	20	1	
246/15	24	NCN1 NCN2	1 1	0 20	435 686	24 29	0 0	
268/16	25	NCN1 NCN2	1 1	50 10	262 3039	21 98	0 0	
271/39	25	RMT1	1	7	15	7	1	
281/17	27	NCN1 NCN2	8 8	0 0	0 n.c.	0 78	0 0	
283/41	27	RMT1	1	714	82	6	1	
292/18	29	NCN1 NCN2	1 16	0 0	71 567	7 113	0 0	
294/44	29	RMT1	1	8	14	2	0	
304/19	30	NCN	1	24	0	0	0	
307/46	30	RMT1	1	257	n.c.	1	5	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
309/20	Jan 30	NCN	1	47	153	0	0	
312/47	30	RWT1	5	452	0	590	0	
330/ 1	Febr 9	MOC2 MOC3 MOC4	1 1 1	26 26 39	225 320 527	63 8 50	5 0 0	
331/ 2	9	NCN	1	0	2	0	0	
335/ 3	9	MOC	40	9	1058	117	0	
339/ 5	9	NCN	20	18	2478	62	0	
340/ 7	10	NCN	1	0	0	0	0	
341/ 8	10	MOC2 MOC3 MOC4 MOC5 MOC6 MOC7 MOC8 MOC9	25 20 1 1 1 1 1 1	0 0 35 63 21 0 73 73	n.c. n.c. 317 109 55 0 8 0	0 47 154 119 41 15 73 51	0 0 41 19 28 0 0 0	
344/ 9	10	MOC2 MOC3 MOC4 MOC5 MOC6 MOC7 MOC8 MOC9	8 2 16 25 1 100 1 50	10 27 39 80 52 0 5 0	1634 1632 1986 241 0 0 0 0	70 12 4 0 0 0 0 284	16 8 28 0 0 0 0 0	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
346/10	Febr 11	MOC	100	86	916	280	1	
348/11	11	RMT1	100	0	2488	0	50	
351/12	11	RMT1	100	10	2193	391	95	
353/13	12	RMT1	50	0	660	0	0	
354/14	12	RMT1	10	46	484	22	22	
357/15	13	RMT1	2	22	361	66	10	
358/16	14	RMT1	10	1135	230	0	0	
360/17	14	MOC2	1	6	329+	19	21	+ not complete
		MOC3	1	0	48	0	0	
		MOC4	4	27	1683	175	0	
		MOC5	16	11	4249	407	0	
362/18	14	RMT1	10	104	1780	241	27	
363/19	15	MOC2	1	7	416	34	5	
		MOC3	1	4	463	94	1	
		MOC4	1	1	19	3	1	
		MOC5	1	0	94	7	0	
		MOC6	1	1	71	10	2	
365/20	15	RMT1	10	17	915	246	0	
366/21	15	MOC	20	41	1725	624	0	
369/23	16	RMT1	20	223	3163	281	35	
370/24	16	RMT1	20	18	1193	101	0	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
372/25	Febr 16	RMT1	1	75	1198	50	11	
374/27	17	RMT1	8	303	1086	50	39	
376/28	17	NCN	1	1	151	7	2	
376/29	17	NCN	6.6	27	5432	175	58	
377/30	17	MOC2	1	0	6	3	0	
		MOC3	4	24	2476	290	28	
		MOC4	1	20	195	16	5	
		MOC5	16	4	738	16	52	
		MOC6	25	172	1897	34	0	
		MOC7	10	100	5100	205	4	
		MOC8	6.6	19	1783	143	0	
		MOC9	1	29	186	38	2	
380/31	18	RMT1	6.6	801	52	13	7	
385/33	18	RMT1	1	127	592	64	0	
386/34	18	RMT1	1	49	243	32	1	
388/35	19	RMT1	5	104	357	2	0	
390/36	19	RMT1	6.6	334	335	27	1	
391/37	19	RMT1	10	21	222	100	0	
392/38	19	RMT1	1	0	50	29	14	
393/39	20	RMT1	25	69	76	38	0	
395/40	20	RMT1	1	61	38	8	30	not quantitative

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
399/41	Febr 20	RMT1	2	6	6	25	0	
402/42	21	RMT1	50	2400	69	58	3	
404/43	21	RMT1	25	0	45	45	0	
405/44	21	RMT1	50	0	613	0	0	
408/45	21	RMT1	50	101	2397	85	0	
409/46	21	RMT1	200	390	0	390	0	
412/47	22	RMT1	50	0	110	219	110	
416/48	23	RMT1	4	0	41	4	0	
420/49	23	RMT1	100	242	3149	117	118	
421/50	24	RMT1	16.6	366	387	182	0	
425/52	24	RMT1	50	530	840	1221	0	
436/60	24	MOC3 MOC4 MOC5 MOC6 MOC7	25 50 10 1 1	43 0 0 91 0	1493 1304 18 28 13	128 609 144 153 8	0 0 0 0 0	
445/64	25	RMT1	13.3	0	276	92	0	
466/75	Mar 1	NCN	10	19	373	12	0	
467/78	1	RMT1	12.5	106	718	38	0	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Euphausiacea Adult + Postlarval	Chaetognaths	Amphipods	Fish larvae	Comment
470/79	Mar 2	RMT1	25	73	606	40	0	
483/89	3	RMT1	100	775	333	333	0	

Antarctic Expedition 1980/81 R.V. "Walther Herwig". Distribution of *Euphausia superba* eggs and larvae.  
 Used nets: RMT1, MESSHAI (MES), NANSEN-CLOSING-NET (NCN). Individuals per 1000 m<sup>3</sup>.  
 Positive hauls are listed only.

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Eggs	Nau- plii	Meta- naupl.	I	Calyptopis II	III	Furcilia Early Mean Late	Total number of larvae	Comment
34/10	Febr 2	RMT1	256				134665	55471	1630		191 767	
51/15	3	RMT1	25				15151	202			15 353	
52/16	3	RMT1	100				1113372	70598	14534		1 217 608	
53/17	3	RMT1	100				202404	81835	7945	596	292 781	
54/18	3	MES	40				28186	3246	463		31 900	
55/19	4	RMT1	200				2489262	501849	72168		3 063 280	
59/21	4	RMT1	16				173	414			587	
61/22	5	RMT1	100				8175	305	61		8 541	
65/23	5	RMT1	2				296	16			313	
69/25	5	RMT1	2				862	14	10		887	
88/34	8	RMT1	20				16856	16312	10493	815	44 477	
89/35	8	RMT1	50				18288	1731		109	20 129	
90/36	8	RMT1	80				322815	67281	29223	679	420 000	
91/37	8	RMT1	100				400844	22942	8249	1289	433 331	



Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Eggs	Nau- plii	Meta- naupl.	I	Calyptopis II	III	Furcilia Early Mean Late	Total number of larvae	Comment
91/38	Febr 8	NCN	16				38314	7057	3600		48 971	
94/39	9	RMT1	100				10524	4677	5730	1988	22 919	
95/40	9	RMT1	40				7743	27396	24418	171	63 047	
97/41	9	RMT1	100				86829	54588	7335	170	148 923	
98/42	10	RMT1	100				304883	24816	5653		335 352	
103/43	11	RMT1	1				39				39	
107/44	11	RMT1	4				7				7	
110/46	12	RMT1	16						29		29	
123/50	13	RMT1	50				258795	7973			266 372	
125/51	14	RMT1	200				276774	438226	411258	171032	1 297 290	
128/52	14	RMT1	50				3818	818	683		5 320	
140/59	16	RMT1	2				43	24	12	6	86	
144/60	16	RMT1	1				272	68	19	3	363	
146/61	16	RMT1	80				652054	89614	14209	1133	757 011	
147/62	17	RMT1	100				87311	203726	253996	144896	689 930	
154/65	18	RMT1	16				4215	3758	1191	434	9 600	
159/67	18	RMT1	2					21	25		46	



Antarctic Expedition 1980/81 R.V. "Meteor". Distribution of Euphausia superba eggs and larvae.  
 Used nets: RMT1, MOCNESS (MOC), NANSEN-CLOSING-NET (NCN). Individuals per 1000 m<sup>3</sup>.  
 Positive hauls are listed only.

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Eggs	Nau- plii	Meta- naupl.	I	Calyptopis II	III	Furcilia Early Mean	Total number of larvae	Comment
165/ 8	Jan 10	NCN	2	50							0	
174/ 9	13	NCN1	1	32	10	7					17	
177/26	13	RMT1	1							3	3	
181/28	16	RMT1	8				28	71	28		128	
184/10	16	NCN1 NCN2	1 1		1332 3	25 424	7				1 357 434	
203/11	19	NCN1 NCN2 NCN3	1 1 1	42 85	21 14	7 35 59			7		28 56 157	
207/12	19	NCN	1		88	108	29	29			254	
215/13	19	NCN1 NCN2 NCN3	1 1 1	7	7	645 88	42 49				14 687 137	
218/33	20	RMT1	1	2							0	
237/14	23	NCN1 NCN2	1 1	120 10	21 10	234 98	42 68				297 176	
246/15	24	NCN1 NCN2	1 1	70 578	106 372	235 176	23 166	78	10		364 804	

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Eggs	Nau- plii	Meta- naupl.	I	Calyptopsis II	III	Furcilia Early Mean Late	Total number of larvae	Comment
268/16	Jan 25	NCN1 NCN2	1 1	10	7			7	7		21 0	
281/17	27	NCN1 NCN2	8 8	281 314	4845 706	63887 6510	1127 15686	3608			69 859 26 510	
283/41	27	RMT1	1				1	5		4	10	
292/18	29	NCN1 NCN2	1 16	42 113	149 113	390	780 15886	28 454			1 347 16 453	
294/44	29	RMT1	1						2	1	3	
304/19	30	NCN	16		381		762	381			1 524	
307/46	30	RMT1	1						34	3	37	
309/20	30	NCN	1	200	3953	8517	670				13 140	
330/ 1	Febr 9	MOC2 MOC3 MOC4	1 1 1	3	5		17015 4034	9442			17 015 4 034 9 446	
331/ 2	9	NCN	1		4			42			46	
335/ 3	9	MOC1	40				100900	460			101 365	
339/ 5	9	NCN	20				98601	6371	1433		106 407	
340/ 6	10	NCN	1				2035	62		9	2 106	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Eggs	Nau- plii	Meta- naupl.	Calvptopis			Furcilia			Total number of larvae	Comment
							I	II	III	Early	Mean	Late		
341/ 8	Febr 10	MOC2	25	46			9422	93					9 515	
		MOC3	20				5759	40					5 799	
		MOC4	1					95	76	32			203	
		MOC5	1				62						62	
		MOC6	1				1379						1 379	
		MOC7	1				10	2	2				15	
		MOC8	1				336			23			359	
		MOC9	25				2564	382	651	67			3 612	
344/ 9	10	MOC2	8	15		436	6023	31	15				6 505	
		MOC3	2			12	5538	53					5 591	
		MOC4	16	28			9532	340					9 872	
		MOC5	25	70			15244	701					15 945	
		MOC6	100	253			286290	3035	1264	253			290 843	
		MOC7	100				1106435	6397					1 112 835	
		MOC8	200				2190180	20068					2 211 161	
		MOC9	50				22244	1238	250				23 732	
346/10	11	MOC1	100	111	22	310	67376	908	155				68 771	
348/11	11	RMT1	100				130586	2683	562	43			133 875	
351/12	11	RMT1	100				36823	40913	24300	2488			104 524	
353/13	12	RMT1	50				3811	469	52				4 334	
354/14	12	RMT1	10	354									0	
357/15	13	RMT1	2	2			15		2	2			20	
358/16	14	RMT1	10				14	27	14	14			69	

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Eggs	Nau- plii	Meta- naupl.	I	Calyptopsis II	III	Furcilia Early Mean Late	Total number of larvae	Comment
360/17	Febr 14	MOC2 MOC5	1 16.6				8 45	2	4		14 45	
362/18	14	RMT1	10				12	12			24	
372/25	16	RMT1	1				3		1	3	7	
374/27	17	RMT1	8					9			9	
376/28	17	NCN	1	8	1						1	
377/30	17	MOC2 MOC4 MOC9	1 1 1				1	2			1 2 0	
386/34	18	RMT1	1	12			1		1		2	
392/38	19	RMT1	1						3	3	6	
395/40	20	RMT1	1						7		7	not quantitative
399/41	20	RMT1	2	11			643	574	142		1 359	
402/42	21	RMT1	50				3333	11913	14691	3765	33 703	
404/43	21	RMT1	25				235	935	195	195	1 559	
405/44	21	RMT1	50	60			1185	5097	770	1244	9 481	
408/45	21	RMT1	50				3718	3718	967		8 402	
409/46	21	RMT1	200				23641	987356	111251	7290	1 129 540	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Eggs	Nau- plii	Meta- naupl.	I	Calyptopsis II	III	Furcilia Early Mean Late	Total number of larvae	Comment
412/47	Febr 22	RMT1	50	285				381			381	
416/48	23	RMT1	4				8	1267	70	16	1 362	
420/49	23	RMT1	100				3853	63775	8416	405	76 150	
421/50	24	RMT1	16.6							113	113	
425/52	24	RMT1	50				2058	664	265	597 995	4 582	
436/60	24	MOC3	25				259	594	259	891	2 003	
		MOC4	50	75				75			75	
		MOC5	10	16			15	15	15		46	
		MOC6	1				17	40	40	11	107	
		MOC7	1				13	15	2	5	35	
445/64	25	RMT1	13.3				38	280	239	38 38	639	
466/75	Mar 1	NCN	10	216			161	217	919	540	1 838	
467/78	1	RMT1	12.5	57				20	38		57	
470/79	2	RMT1	25				143		1150	526	1 819	
483/89	3	RMT1	100						7527	1447	8 974	

Antarctic Expedition 1980/81 R.V. "Walther Herwig". Distribution of euphausiid larvae other than krill.  
 Used nets: RMT1, MESSHAI (MES), NANSEN-CLOSING-NET (NCN). Individuals per 1000 m<sup>3</sup>.  
 E. fr. = Euphausia frigida; E. tr. = Euphausia triacantha; T. sp. = Thysanoessa sp..  
 Positive hauls are listed only.

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopis			Furcilia			Total number of larvae	Comment
						I	II	III	Early	Mean	Late		
34/10	Febr 2	RMT1	256		T.sp.			752			1469	2 221	
51/15	3	RMT1	25	E.fr.				202	41			243	
				T.sp.						326		326	
52/16	3	RMT1	100	E.fr.		12458	3737					16 196	
				T.sp.				1661	415		2076	4 152	
53/17	3	RMT1	100	E.fr.		2185	397	397	198			3 376	
				T.sp.			1986				3938	11 123	+ 198 postlarvae
54/18	3	MES	40		T.sp.						233	233	
55/19	4	RMT1	200	E.fr.		12213						12 213	
				T.sp.				12213	12213		28867	53 293	
59/21	4	RMT1	16	E.fr.				1244	138			1 382	
				T.sp.				1382			20561	21 943	
61/22	5	RMT1	100	E.fr.		61	183	61				305	
				T.sp.				427			3599	4 026	
65/23	5	RMT1	2		T.sp.			6			93	99	
69/25	5	RMT1	2		T.sp.				41	104		145	



Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopsis I II III	Furcilia Early Mean Late	Total number of larvae	Comment
88/34	Febr 8	RMT1	20	T.sp.			706	706	
89/35	8	RMT1	50	T.sp.		109		109	
90/36	8	RMT1	80	E.fr.	1359	1359 1359	1699	2 718 3 058	
91/37	8	RMT1	100	T.sp.			5413	5 413	
91/38	8	NCN	16	E.fr.	257		143	257 286	
94/39	9	RMT1	100	E.fr.	117 117 351 234 1286	117 818	8185	701 10 524	
95/40	9	RMT1	40	E.fr.	594	2041	5530	594 7 571	
97/41	9	RMT1	100	T.sp.		2900	1365	4 265	
98/42	10	RMT1	100	T.sp.	1437		191	1 628	
103/43	11	RMT1	1	T.sp.			177	177	
107/44	11	RMT1	4	T.sp.		625	692	1 317	+ 6 postlarvae
108/45	9	RMT1	8	T.sp.			3384	3 384	
110/46	12	RMT1	16	T.sp.		4176	353	4 529	
123/50	13	RMT1	50	T.sp.			64	64	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopis			Furcilia		Total number of larvae	Comment
						I	II	III	Early	Late		
125/51	Febr 14	RMT1	200	E.fr.		355		355	6032		709 6 032	
128/52	14	RMT1	50	T.sp.						953	953	
140/59	16	RMT1	2	T.sp.			40		49	92	181	
144/60	16	RMT1	1	E.fr.		10	8	14	3	3	36 163	
146/61	16	RMT1	80	E.fr.		174	87		4184		261 4 184	
147/62	17	RMT1	100	E.fr.		2646		5291			2 646 5 291	
154/65	18	RMT1	16	T.sp.					265		265	
162/69	18	RMT1	10	T.sp.					31		31	+ 16 postlarvae
167/70	19	RMT1	50	E.fr.					313	523	313 626	+ 523 postlarvae
169/71	20	RMT1	200	E.fr.		2197			6812		9 009	
173/72	20	RMT1	100	T.sp.					4205		4 205	
191/75	23	RMT1	1	T.sp.					2461		2 461	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopis			Furcilia			Total number of larvae	Comment
						I	II	III	Early	Mean	Late		
232/14	Mar 12	RMT1	4	E.fr.					101			101	possibly also E.cryst.
				T.sp.						256		256	
249/31	17	RMT1	2	E.fr.						185		185	
				T.sp.					580			580	
251/33	17	RMT1	30		T.sp.						431	431	
252/34	17	RMT1	1		T.sp.					176		176	
254/36	18	RMT1	4		T.sp.				2830			2 830	
255/37	18	RMT1	1		T.sp.				497			497	
256/38	18	RMT1	1		T.sp.				772			772	
257/39	19	RMT1	1		T.sp.				97			97	
258/40	19	RMT1	1		T.sp.							1 311	partly fragments
259/41	19	RMT1	2		T.sp.				1056			1 056	

Antarctic Expedition 1980/81 R.V. "Meteor". Distribution of euphausiid larvae other than krill.

Used nets: RMT1, MOCNESS (MOC), NANSEN-CLOSING-NET (NCN). Individuals per 1000 m<sup>3</sup>.

E. fr. = *Euphausia frigida*; E. tr. = *Euphausia triacantha*; T. sp. = *Thysanoessa* sp..

Positive hauls are listed only.

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopis			Furcilia			Total number of larvae	Comment
						I	II	III	Early	Mean	Late		
165/ 8	Jan 10	NCN	2	E.fr.							250	250	
				T.sp.				50	50			100	
175/9	13	NCN2	1	E.fr.	7							7	
				E.tr.	7							7	
				T.sp.	21							21	
177/26	13	RMT1	1	E.fr.					62		26	88	
				E.tr.					6			6	
				T.sp.			6			3198		3 204	
180/27	14	RMT1	1	E.fr.					2			2	
				E.tr.					2			2	
				T.sp.					184			184	
181/28	16	RMT1	8		T.sp.		43			374		417	
194/31	18	RMT1	1		T.sp.				9			9	
203/11	19	NCN1	1		T.sp.		14					14	
		NCN2	1		T.sp.					14		14	
		NCN3	1		T.sp.	19	108			10		137	
207/12	19	NCN3	1		T.sp.					49		49	
215/13	19	NCN2	1		T.sp.			7				7	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopis			Furcilia			Total number of larvae	Comment
						I	II	III	Early	Mean	Late		
218/33	Jan 20	RMT1	1	T.sp.					4			4	
237/14	23	NCN2	1	T.sp.		-----88-----						88	
245/37	23	RMT1	1	T.sp.					-----78-----			78	
246/15	24	NCN2	1	T.sp.		-----18-----			49			67	
268/16	25	NCN2	1	T.sp.			-----49-----					49	
271/39	25	RMT1	1	T.sp.						-----40-----		40	
281/17	27	NCN2	8	T.sp.		-----1019-----						1 019	
283/41	27	RMT1	1	T.sp.					-----20-----			20	
292/18	29	NCN1	1	T.sp.			7					7	
		NCN2	16	T.sp.		-----1362-----			794	340	113	2 610	
294/44	29	RMT1	1	T.sp.					-----13-----			13	
307/46	30	RMT1	1	T.sp.					-----13-----			13	
309/20	30	NCN	1	T.sp.		-----47-----				23		70	
330/ 1	Febr 9	MOC2	1	T.sp.	3				10		5	15	
		MOC3	1	E.fr.								3	
		MOC4	1	E.fr.			4					4	
				T.sp.					-----66-----			66	
335/ 3	9	MOC1	40	T.sp.					276	92	153	522	

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Species	Naupliar Stages	Calyptopis			Furcilia		Total number of larvae	Comment
						I	II	III	Early	Mean Late		
339/ 5	Febr 9	NCN	20		T.sp.				478	159 637	1 274	
341/ 8	10	MOC9	25		T.sp.					45	45	
344/ 9	10	MOC3	2		T.sp.				4		4	
		MOC8	200		T.sp.			912			912	
		MOC9	50		T.sp.	250	738	1233	738	2421 988	6 420	
346/10	11	MOC1	100		T.sp.			221	88	332 44	686	
348/11	11	RMT1	100	E.fr.	T.sp.		86	173	130	173 86	86	
351/12	11	RMT1	100	E.fr.	T.sp.	83		83			166	
					T.sp.			332	1161	2322	3 815	
353/13	12	RMT1	50		T.sp.			1044		1358	2 402	
354/14	12	RMT1	10		T.sp.			95	114	582	793	
357/15	13	RMT1	2		T.sp.			2	92	285	379	
358/16	14	RMT1	10		T.sp.			55	41	138	234	
360/17	14	MOC2	1		T.sp.		31		2		33	
		MOC3	1		T.sp.		8		16		24	
		MOC4	4		T.sp.			131	87		218	
		MOC5	16.6		T.sp.			1989	497		1 486	
362/18	14	RMT1	10		T.sp.			506		1036	1 542	
365/20	15	RMT1	10		T.sp.			7	137	53 7	206	

Stat./Haul	Date 1981	Gear	Aliquot counted n <sup>-1</sup>	Species	Naupliar Stages	Calyptopis			Furcilia			Total number of larvae	Comment
						I	II	III	Early	Mean	Late		
366/21	Febr 15	RMT1	20	T.sp.				70	222	161		453	
369/23	16	RMT1	20	T.sp.			126	190	316	158	95	885	
370/24	16	RMT1	20	T.sp.			233		116		52	401	
372/25	16	RMT1	1	T.sp.				74	409			483	
374/27	17	RMT1	8	T.sp.				217	269			486	
376/29	17	NCN	7	T.sp.			62	124	1053			1 239	
377/30	17	MOC3	4	T.sp.				28	14			42	
		MOC4	1	T.sp.				5	2			7	
		MOC5	16	T.sp.				fragments				766	
		MOC6	25	T.sp.				682	589			1 271	
		MOC7	10	T.sp.				144	1156			1 300	
		MOC8	7	T.sp.					347			347	
		MOC9	1	T.sp.			7	40	42			89	
380/31	18	RMT1	6.6	T.sp.					28	151		180	
385/33	18	RMT1	1	T.sp.			171		313	70		455	
386/34	18	RMT1	1	T.sp.			29		42	6		77	
390/36	19	RMT1	6.6	T.sp.			8	8	74	8		98	
391/37	19	RMT1	10	T.sp.					10		10	20	
392/38	19	RMT1	1	E.fr. T.sp.					3 11	18 25		21 50	+ 14 postlarvae

Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Species	Naupliar Stages	Calyptopsis I II III	Furcilia Early Mean Late	Total number of larvae	Comment
393/39	Febr 20	RMT1	25	T.sp.			99	99	
395/40	20	RMT1	1	T.sp.			30	30	not quanti- tative
399/41	20	RMT1	2	T.sp.		108	108	216	
402/42	21	RMT1	50	T.sp.		185	62 247 185	679	
404/43	21	RMT1	25	E.fr.		195	39 623	39 818	
405/44	21	RMT1	50	T.sp.		532	1778	2 310	
408/45	21	RMT1	50	T.sp.		73	446	519	+ 73 postlarvae
409/46	21	RMT1	200	E.fr.			1093 364	1 093 1 056	
412/47	22	RMT1	50	E.fr.		94	191 285 94 943	94 1 526	
416/48	23	RMT1	4	E.fr.		8	8 4 8	8 20	
420/49	23	RMT1	100	E.fr.		101	101 405	101 811	
421/50	24	RMT1	16.6	E.fr.			342 775	90 1 118	



Stat./Haul	Date 1981	Gear	Aliquot counted n-1	Species	Naupliar Stages	Calyptopis			Furcilia			Total number of larvae	Comment
						I	II	III	Early	Mean	Late		
425/52	Febr 24	RMT1	50	E.fr.	T.sp.	198	65	133	862		464	198 1 526	
436/60	24	MOC3	25	E.fr.	T.sp.		334		334	556		556 668	
		MOC4	50	E.fr.	T.sp.					530		530	
		MOC5	10		T.sp.				682		756	1 436	
		MOC6	1		T.sp.			5	46	156	485	687	
		MOC7	1		T.sp.				34	341		380	
										119		119	
445/64	25	RMT1	13.3		T.sp.				38	481	602	1 121	
466/75	Mar 1	NCN	10		T.sp.			161			161	322	
467/78	1	RMT1	12.5		T.sp.		116			175	156	448	
470/79	2	RMT1	25		T.sp.			48	1198		623	1 867	
483/89	3	RMT1	100		T.sp.		145	145				290	

42 Antarctic Expedition 1980/81 RV "Walther Herwig". Macrozooplankton composition of catches from surface waters.  
 Maximum haul depth: 200 m.  
 Used net: RMT 8, mesh size 4.5 mm.  
 Individuals per 1000 m<sup>3</sup>, +: less than 1 per 1000 m<sup>3</sup>.

4.3.

RMT 8-samples

Stat. Haul	Date 1981	Aliquot counted [n <sup>-1</sup> ]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
	Jan																
11/ 3	26	1	415	1	4	1	0	+	0	+	43	+	1	0	+	0	0
19/ 4	30	1	80	+	5	+	0	+	0	+	0	1	+	0	7	0	0
25/ 5	31	1	475	+	1	3	+	4	0	+	53	+	0	0	3	0	0
27/ 6	31	2.25	4500	206	10	9	0	+	0	0	4	+	2	+	1	+	0
28/ 7	31	5	10000	542	2	3	0	+	0	0	1	1	0	0	0	0	0
31/ 8	31	1.75	3500	+	446	120	0	0	0	2	117	0	0	0	0	0	0
	Febr																
33/ 9	1	1	310	6	1	12	0	1	0	1	+	+	0	0	0	0	0
34/10	1	1	500	+	3	3	0	+	+	3	6	+	+	+	+	0	0
38/11	2	1	750	1	25	20	+	1	+	+	3	10	4	1	+	1	0
42/12	2	1.1	1100	83	27	+	+	2	0	1	0	5	11	0	+	0	0
47/14	3	1	1200	52	20	1	0	2	0	+	79	22	4	1	+	0	0
51/15	3	1	200	1	0	13	0	+	0	2	6	2	0	+	0	0	0

Stat. Haul	Date 1981	Aliquot counted [n <sup>-1</sup> ]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
Febr																	
52/16	3	1	360	0	1	4	0	+	+	3	13	2	+	+	+	+	0
53/17	3	1	740	0	4	50	0	+	0	4	68	9	+	+	+	0	0
55/19	3	4.5	9000	+	35	129	0	+	0	4	478	3	0	0	0	4	0
58/20	4	1	200	0	2	33	0	+	+	2	1	1	0	0	+	0	0
59/21	4	1	16	0	+	5	0	1	+	1	+	5	0	0	0	0	0
61/22	5	1	184	0	3	+	0	0	0	+	3	+	0	0	+	+	0
65/23	5	1	231	7	66	30	+	+	0	1	0	1	0	0	0	0	0
67/24	5	1	402	9	11	21	+	+	0	0	0	+	0	0	+	0	0
69/25	5	1	500	3	18	3	+	+	0	+	5	+	3	0	+	0	0
73/26	6	1	130	2	11	1	+	4	+	1	+	14	12	0	+	+	0
74/27	6	1	100	3	8	2	1	6	+	+	0	22	7	+	1	0	0
75/28	6	1	90	25	5	3	1	5	0	1	0	10	7	+	+	0	0
76/29	6	1230.77	32000	88946	+	0	0	0	0	0	0	0	0	0	0	0	0
77/30	7	1	400	8	42	3	1	2	+	+	14	3	7	0	1	1	0
81/31	7	1	80	+	50	+	0	5	0	+	0	5	8	0	0	0	0
43 82/32	7	1	50	1	28	2	1	3	0	0	0	2	7	0	0	0	0

Stat. Haul	Date 1981	Aliquot counted [n <sup>-1</sup> ]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
	Febr																
83/33	8	1	80	+	25	2	0	2	0	+	7	+	1	0	0	1	0
89/35	8	1	555	34	+	1	0	0	0	2	+	0	0	0	+	0	0
90/36	8	1	300	0	4	9	+	+	0	1	47	0	+	+	0	0	0
91/37	8	1	44	0	0	1	0	+	+	3	+	1	0	+	0	0	0
94/39	9	1	32	0	+	2	0	+	0	+	0	3	0	0	+	0	0
95/40	9	1	50	0	+	28	0	1	+	0	0	4	0	0	0	0	0
97/41	9	1	43	0	1	7	0	+	+	+	0	2	0	0	0	0	0
98/42	10	1	2800	+	6	16	0	0	0	2	140	1	+	+	+	2	0
103/43	10	1	998	56	1	18	0	4	0	3	0	1	0	0	0	0	0
107/44	11	1	100	25	1	2	1	3	+	1	0	9	14	+	1	+	0
108/45	11	1	196	60	35	3	1	3	+	2	0	24	+	0	+	0	0
110/46	12	1	182	122	20	11	1	4	+	1	0	12	0	0	+	0	0
115/47	12	1	220	31	1	+	0	6	0	+	0	1	0	0	+	0	0
116/48	12	1	51	1	5	1	1	1	0	+	0	2	5	0	+	0	0
118/49	12	1.7	2500	98	0	8	0	1	0	0	0	+	0	0	1	0	0
123/50	13	1	20	+	0	5	0	1	0	+	0	+	0	0	0	0	0
125/51	14	2.7	5000	0	11	8	0	1	1	1	428	1	1	0	0	1	0

Stat. Haul	Date 1981	Aliquot counted [n <sup>-1</sup> ]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
128/52	Febr 14	1	21	1	0	2	0	+	0	2	+	0	0	0	+	0	0
130/53	14	1	10	0	0	2	0	+	0	+	0	0	0	0	0	0	0
131/54	15	1	150	+	6	1	+	+	0	+	13	2	3	+	+	0	0
134/55	15	3	6000	535	0	+	0	3	0	0	0	0	0	0	2	0	0
136/56	15	1	200	7	35	1	0	5	0	0	0	+	+	0	0	0	0
137/57	15	1	300	34	3	2	+	2	0	0	0	12	2	0	+	0	0
138/58	15	3	6000	668	0	1	0	1	0	1	0	+	0	0	0	0	0
140/59	16	1	203	5	5	3	2	2	0	+	+	1	3	0	+	1	0
144/60	16	1	65	+	2	14	0	1	0	+	8	2	0	0	0	0	0
146/61	16	2.5	5000	0	27	8	0	0	0	1	113	1	0	0	0	0	0
147/62	17	2.5	5000	1	14	30	0	0	0	15	386	+	3	1	0	+	0
151/63	17	1	70	3	1	4	0	0	0	2	0	0	0	0	+	0	0
153/64	17	1	20	+	6	6	0	+	0	0	0	0	0	0	0	0	0
154/65	18	1	1500	8	29	16	0	+	0	+	203	+	+	0	+	+	0
157/66	18	1	60	7	13	1	0	1	0	+	0	4	5	0	1	0	0
159/67	18	1	1100	96	1	1	1	+	0	0	0	1	0	0	+	0	0
162/69	18	1	356	30	1	+	1	0	0	0	1	1	+	0	1	0	0

Stat. Haul	Date 1981	Aliquot counted [n-1]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
Febr																	
167/70	19	2	4000	414	15	19	+	+	0	0	38	1	1	0	+	1	0
169/71	20	1	1100	+	30	5	+	+	0	2	31	24	0	+	+	1	0
173/72	20	1	90	0	0	13	0	0	0	1	0	3	0	0	0	0	0
178/74	21	1	27	+	1	1	+	+	0	0	0	2	1	0	1	+	0
203/82	26	1	250	+	15	199	0	0	0	0	0	0	0	0	+	0	0
204/83	26	10	5000	288	11	361	0	0	0	0	0	0	0	0	0	0	0
205/84	27	1	200	+	48	47	0	+	0	0	+	+	0	0	+	0	0
207/85	27	1	1000	230	144	389	0	0	0	0	1	0	0	0	0	0	0
208/86	27	3.5	7000	403	79	226	0	0	0	0	0	0	0	0	+	0	0
210/89	28	26	52000	1975	19	61	0	0	0	0	8	0	0	0	+	0	0
211/90	28	1	450	2	46	415	0	0	0	0	0	1	0	0	0	0	0
Mar																	
219/ 1	10	1	60	0	+	30	0	1	0	1	0	1	0	0	+	0	0
220/ 2	11	1	100	0	67	6	0	2	0	1	2	3	0	0	1	0	0
221/ 3	11	1	200	0	2	181	0	3	1	2	1	6	0	0	0	0	0
222/ 4	11	1	n.e.m.	0	0	23	0	2	0	3	1	3	0	0	+	+	0
223/ 5	11	1	25	0	27	9	0	+	+	1	0	0	0	0	2	0	0
224/ 6	11	1	30	0	21	23	0	+	0	2	0	1	0	0	4	0	0

Stat. Haul	Date 1981	Aliquot counted [n <sup>-1</sup> ]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
Mar																	
225/ 7	11	1	270	0	34	200	0	0	0	0	0	0	0	0	2	0	0
226/ 8	12	1	230	1	363	126	0	0	0	0	+	1	0	0	3	+	0
227/ 9	12	1	600	90	61	4	0	0	0	0	5	0	0	0	8	0	0
228/10	12	1	60	1	3	3	0	+	0	0	2	+	0	0	4	0	0
229/11	12	1	100	1	0	4	0	+	0	0	4	+	0	0	2	0	+
230/12	12	5	7500	581	6	1	0	0	0	0	3	+	3	+	22	0	0
232/14	12	2	1800	103	56	+	0	0	0	0	2	+	0	0	18	0	0
233/15	13	15	30000	3960	25	3	0	0	0	0	134	0	0	0	10	0	0
234/16	13	1	200	15	39	34	0	+	0	+	0	+	0	0	1	0	0
235/17	13	1	100	0	97	5	0	0	0	+	0	6	0	0	+	0	0
236/18	13	1	50	+	69	110	0	0	0	1	0	11	0	0	0	0	0
238/21	13	4.7	7000	843	21	23	0	0	0	0	0	0	0	0	0	0	0
239/22	13	1	100	3	60	19	0	0	0	+	0	+	0	0	+	0	0
240/23	15	1	100	1	65	180	0	0	0	0	0	12	0	0	+	0	0
241/24	15	1	150	+	133	1	0	0	0	0	1	0	0	0	+	0	0
242/25	15	1	200	35	3	1	+	+	0	0	0	2	+	0	2	1	0
244/26	15	1	50	1	7	1	+	1	0	0	0	12	1	0	1	0	0

Stat. Haul	Date 1981	Aliquot counted [n-1]	Total catch [ml]	Euph. sup.	other Euph.	Amphi pods	Deca pods	Gastro pods	Cepha lopods	Poly chaets	Salps	Chae togn.	Sipho noph.	Medu sae	Fish larv.	Fish adult	Mysi dac.
245/27	Mar 15	1	50	3	2	+	0	2	0	+	0	4	1	0	2	0	0
246/28	16	1	40	10	29	+	0	0	0	0	+	+	0	0	+	0	0
247/29	16	1	200	4	114	9	0	+	0	0	+	+	0	0	1	0	0
248/30	16	1	200	+	33	83	0	+	0	0	0	0	0	0	+	0	0
249/31	17	1	200	2	3	8	0	0	0	0	25	7	1	0	2	0	0
250/32	17	1	500	18	12	17	0	0	0	0	40	8	1	0	1	0	0
251/33	17	1	200	12	9	22	0	+	0	0	+	16	0	0	12	0	0
252/34	17	1	200	1	5	19	0	0	0	0	41	32	2	0	11	0	0
253/35	18	1	500	67	15	11	0	+	0	+	2	9	0	+	1	0	0
254/36	18	1	1100	144	9	66	0	0	0	0	0	+	0	0	+	0	0
255/37	18	1	50	1	2	7	0	0	0	0	4	12	0	0	17	0	0
257/39	19	1	500	85	1	8	0	0	0	1	0	0	0	0	0	0	0
258/40	19	1	150	+	11	3	0	+	0	0	8	1	0	+	0	0	0
259/41	19	1	60	+	13	4	0	0	0	+	1	8	1	0	1	0	0
260/42	19	1	80	2	0	4	0	+	0	+	1	0	1	0	+	0	0



#### 4.4. Polish and Argentine krill larvae data

Total amount of krill larvae in the Atlantic Sector of the Southern Ocean during FIBEX 1981.  
Stations with positive catch only.

Number of station A - Argentina P - Poland	Date 1981	Position		Total number of krill larvae per 1000 m <sup>3</sup>
Jan				
2A	19	59°38'S	46°08'W	144
4A	20	58°17'S	45°05'W	185
5A	21	58°43'S	45°06'W	23 782
6A	22	58°33'S	43°23'W	211 584
7A	24	59°23'S	43°28'W	26
13A	26	60°52'S	47°13'W	65
Febr				
14A	7	58°30'S	42°26'W	28 779
15A	7	60°16'S	42°28'W	9 261
16A	8	59°58'S	42°44'W	221
17A	8	58°45'S	42°40'W	302 259
18A	9	58°27'S	42°56'W	428
19A	9	59°47'S	45°01'W	38 196
20A	10	59°53'S	43°47'W	65
21A	10	58°32'S	43°48'W	4 286
22A	11	58°34'S	44°31'W	34 013
23A	11	60°01'S	54°27'W	304 156
24A	12	58°00'S	45°36'W	103 584
25A	12	59°58'S	45°36'W	102 545
26A	13	58°32'S	45°44'W	22 415
27A	13	59°35'S	46°02'W	172 348
28A	14	59°25'S	46°46'W	54 753
29A	14	58°17'S	46°53'W	33 196
30A	15	60°10'S	47°04'W	13
31A	15	61°50'S	47°48'W	1 441
6P	15	63°02'S	66°00'W	1 500
32A	16	59°45'S	47°57'W	87 740

Number of station	Date	Position		Total number of
A - Argentina	1981			krill larvae
P - Poland				per 1000 m <sup>3</sup>

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	Febr			
33A	16	57°58'S	48°01'W	201 454
17P	18	62°14'S	64°59'W	2 890
22P	19	61°49'S	64°02'W	4 200
25P	19	62°55'S	64°01'W	28 788
31P	20	63°40'S	62°58'W	30
32P	21	62°11'S	62°60'W	35 310
36P	22	60°05'S	62°01'W	60 090
38P	22	61°17'S	61°59'W	1 900
46P	24	60°55'S	61°03'W	4 630
47P	24	60°02'S	59°60'W	120 295
49P	25	61°29'S	60°01'W	224 250
53P	25	61°59'S	59°30'W	900
55P	26	61°15'S	58°59'W	32 750
56P	26	60°32'S	58°59'W	1 500
58P	26	60°17'S	58°60'W	1 970
61P	27	61°28'S	58°31'W	38 000
62P	27	61°49'S	58°32'W	1 730
65P	28	61°01'S	57°20'W	640
67P	28	61°60'S	56°36'W	8 240
	Mar			
68P	4	61°00'S	56°30'W	60 750
69P	4	61°45'S	56°30'W	1 500
70P	4	62°18'S	56°29'W	10 770
73P	5	62°56'S	57°29'W	840
76P	5	62°32'S	57°30'W	1 680
77P	5	62°19'S	57°31'W	8 170
79P	6	62°12'S	58°00'W	12 280
81P	6	62°32'S	57°56'W	7 890
84P	6	63°05'S	58°20'W	370
86P	7	62°19'S	58°20'W	2 728
87P	7	62°09'S	58°28'W	26 680
88P	8	62°22'S	58°41'W	2 620

Number of station	Date	Position	Total number of
A - Argentina	1981		krill larvae
P - Poland			per 1000 m <sup>3</sup>

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	Mar			
92P	9	63°28'S	59°30'W	200
94P	9	63°11'S	59°30'W	1 500
97P	10	62°43'S	59°57'W	2 640
100P	10	63°35'S	61°01'W	620
102P	11	63°13'S	60°58'W	320
103P	11	62°46'S	61°00'W	30

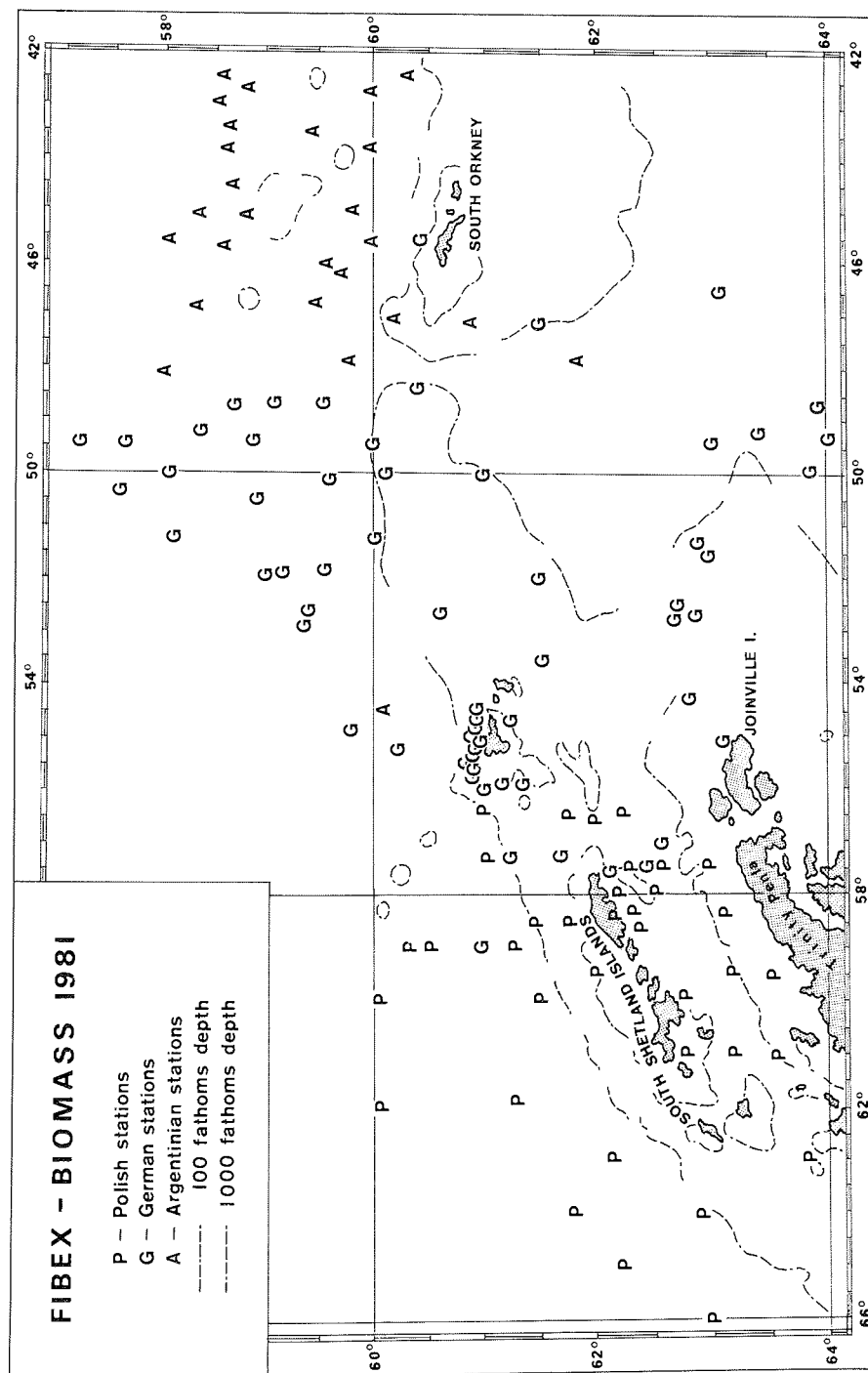


Fig. 7 Stations of krill larvae sampling during FIBEX 1981.

### Acknowledgement

We thank all sorters for their useful help.

### 5. References

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